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Biotechnology / Genetic engineering

Top researchers are calling for a real investigation into the origin of covid-19

A group of prominent biologists say there needs to be a “safe space” for asking whether the coronavirus came out of a lab.

by **Rowan Jacobsen**

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A year ago, the idea that the covid-19 pandemic could have been caused by a laboratory accident was denounced as a conspiracy theory by the world's leading journals, scientists, and news organizations.

But the origin of the virus that has killed millions remains a mystery, and the chance that it came from a lab has become the theory that cannot be put to rest.

Now, in a letter in the journal Science, 18 prominent biologists—including the world's foremost coronavirus researcher—are lending their weight to calls for a new investigation of all possible origins of the virus, and calling on China's laboratories and agencies to “open their records” to independent analysis.



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No one can find the animal that gave people covid-19

Here's your guide to the WHO-China search for the origins of the coronavirus.

aim at a recent joint study of covid origins undertaken by the World Health Organization and China, which concluded that a bat virus likely reached humans via an intermediate animal and that a lab accident was “extremely unlikely.”

That conclusion was not scientifically justified, according to the authors of the new letter, since no trace of how the virus first jumped to humans has been found and the possibility of a laboratory accident received only a cursory look. Just a handful of the 313 pages of the WHO origins report and its annexes are devoted to the subject.

Marc Lipsitch, a well-known Harvard University epidemiologist who is among the signers of the letter, said he had not expressed a view on the origin of the virus until recently, choosing instead to focus on improving the design of epidemiological studies and vaccine trials—in part because the debate over the lab theory has become so controversial. “I stayed out of it because I was busy dealing with the outcome of the pandemic instead of the origin,” he says. “[But] when the WHO comes out with a report that makes a specious claim about an important topic ... it’s worth speaking out.”

Several of those signing the letter, including Lipsitch and Relman, have in the past called for greater scrutiny of “gain of function” research, in which



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accidental release from a high-security biolab at between 1 in 1,000 and 1 in 10,000 per year, and he has warned that the proliferation of such labs around the globe is a major concern.

Even though Chinese scientists have said no such leak occurred in this case, the letter writers say that can only be established through a more independent investigation. “A proper investigation should be transparent, objective, data-driven, inclusive of broad expertise, subject to independent oversight, and responsibly managed to minimize the impact of conflicts of interest,” they write. “Public health agencies and research laboratories alike need to open their records to the public. Investigators should document the veracity and provenance of data from which analyses are conducted and conclusions drawn.”

The chief scientist for emerging disease at the Wuhan Institute of Virology, Shi Zhengli, said in an email that the letter’s suspicions were misplaced and would damage the world’s ability to respond to pandemics. “It’s definitely not acceptable,” Shi said of the group’s call to see her lab’s records. “Who can provide an evidence that does not exist?”

“It’s really sad to read this ‘Letter’ written by these 18 prominent scientists,” Shi wrote in her email. “The hypothesis of a lab leaking is just based on the expertise of a lab which has long been working on bat coronaviruses which are phylogenetically related to SARS-CoV-2. This kind of claim will definitely damage the reputation and enthusiasm of scientists who are dedicated to work on the novel animal viruses which have potential spill-over risk to human populations and eventually weaken



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Shi Zhengli in a high security laboratory at the Wuhan Institute of Virology. The Chinese virologist says calls by outsiders to inspect her lab's records are "not acceptable."

AP IMAGES

The discussion around the lab leak hypothesis has already become highly political. In the US, it has been embraced most loudly by Republican lawmakers and conservative media figures, including Fox News host Tucker Carlson. The resulting polarization has had a chilling effect on scientists, some of whom have been reluctant to express their own concerns, says Relman.

“We felt motivated to say something because science is not living up to what it can be, which is a very fair and rigorous and open effort to gain greater clarity on something,” he says. “For me, part of the purpose was to create a safe space for other scientists to say something of their own.”



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That opinion was seconded by Rear Admiral Kenneth Bernard, an epidemiologist and disease detective who served as the biodefense expert in the Clinton and George W. Bush White Houses. The letter, he says, “is balanced, well written, and exactly reflects the opinion of every smart epidemiologist and scientist I know. If asked, I would have signed it myself.”

The letter echoes some of the concerns of an [earlier call](#) for a new investigation published in the Wall Street Journal by a collection of 26 policy analysts and scientists, who demanded more scrutiny of the Wuhan laboratory and argued that “the [WHO] team did not have the mandate, the independence, or the necessary accesses” to carry out a full and unrestricted investigation.

But that group consisted largely of outsiders, and the letter was dismissed by some established virologists on the grounds that its signatories lacked appropriate expertise. “It’s hard to find anybody with relevant experience who signed,” [tweeted](#) Kristian Andersen, a Scripps Research Institute immunologist and virus expert who has argued that the available evidence points to a natural origin.



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Biologists rush to re-create the China coronavirus from its DNA code

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foremost authority on coronaviruses, and who pioneered techniques for genetically manipulating such viruses that became a major aspect of research at the Wuhan Institute of Virology.

The new letter also gains extra gravitas from its publication in *Science*, one of the world's most prestigious journals. That choice of venue, says Relman, was important. "Some of our coauthors said to us, 'I'll participate, but I don't want to be a part of an open letter to the world, or an op-ed in the *New York Times*. That's not how I see my role in this. I'm a scientist. I would much rather be addressing fellow scientists in a scientific journal.'"

If China doesn't assent to a new probe, it's unclear what form a further investigation would take, or which countries would participate, Relman acknowledges. Still, he believes the new letter could give useful cover for Democrats and the White House to join the questioning about the origin of covid-19.

"I do think there are ways of organizing an investigation that has value," says Relman. "It won't be as incisive as it might have been if it had been undertaken the first week of January 2020 and everything was on the table, but I still think it's not too late. And even if we don't get a definite answer, it's still worth it, because we'll get further along than we are now."

Whether or not an investigation uncovers the source of covid-19, it signals



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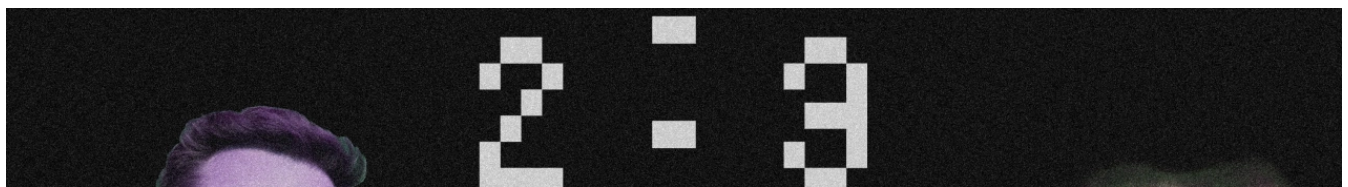
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